### **ENVIRONMENTAL CHEMISTS**

Date of Report: 08/22/97 Date Received: 08/19/97 Project: Metro Grab M58177 Date Extracted: 08/19/97 Date Analyzed: 08/20/97

# RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as mg/L (ppm)

Sample ID	<u>mple ID</u> M58177			
Analyte:				
Chromium	0.54	<0.05		
Copper	0.57	<0.05		
Nickel	0.62	<0.05		
Zinc	<0.05	<0.05		

### **ENVIRONMENTAL CHEMISTS**

Date of Report: 08/22/97 Date Received: 08/19/97 Project: Metro Grab M58177

## QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 708052-01 (Duplicate)

				Relative	
	Reporting	Sample	Duplicate	Percent	Acceptance
Analyte:	Units	Result	Result	Difference	Criteria
Chromium	mg/L (ppm)	0.20	0.23	14	0-20
Copper	mg/L (ppm)	0.48	0.51	6	0-20
Nickel	mg/L (ppm)	0.39	0.41	5	0-20
Zinc	mg/L (ppm)	0.06	0.07	15	0-20

Laboratory Code: 708052-01 (Matrix Spike)

	Reporting		Sample	% I	Recovery	Acceptance	Relative Percent	
Analyte:	Units	Level	Result	MS	MSD	Criteria	Difference	
Chromium	mg/L (ppm)	5	0.20	88	87	80-120	1	
Copper	mg/L (ppm)	5	0.48	91	90	80-120	1	
Nickel	mg/L (ppm)	10	0.39	91	89	80-120	2	
Zinc	mg/L (ppm)		0.06	89	88	80-120	1	

Laboratory Code: Spike Blank

	Reporting	Spike	% F	lecovery	Acceptance	Relative Percent		
Analyte:	Units	Level	MS	MSD	Criteria	Difference		
Chromium	mg/L (ppm)	5	97	98	80-120	1		
Copper	mg/L (ppm)	5	98	99	80-120	1		
Nickel	mg/L (ppm)	10	102	103	80-120	1		
Zinc	mg/L (ppm)	5	99	99	80-120	0		

PJ# 708064

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

SAMPLE CHAIN OF CUSTODY

RJ 8-19-97

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06/09/97

#### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

August 22, 1997

Gerald Thompson Alaskan Copper Works 628 Hanford Street Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on August 19, 1997 from your Metro Grab M58177 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

**Kurt Johnson** 

Chemist

Enclosures

ACU0822R.DOC

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James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

August 22, 1997

#### **DUPLICATE COPY**

#### **INVOICE # 97NAA0822-2**

Accounts Payable Alaskan Copper Works 628 Hanford Street Seattle, WA 98134

RE: Project Metro Grab M58177: Results of testing requested by Gerald Thompson for material submitted on August 19, 1997.

FEDERAL TAX ID #(b) (6)